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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,758	12/26/2001	Hiroyuki Matsushima	217504US2	1667
22850	7590	10/05/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CHOW, CHIH CHING	
			ART UNIT	PAPER NUMBER
			2122	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,758

Applicant(s)

MATSUSHIMA, HIROYUKI

Examiner

Chih-Ching Chow

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/26/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☒ Certified copies of the priority documents have been received in Application No. 12/26/2001.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to the application filed on December 26, 2001.
2. The priority date considered for this application is March 28, 2001, which is the filing date of a Foreign Application date.
3. Claims 1-28 have been examined.

### *Specification*

4. The disclosure is objected to because of the following informalities: **MFP**, **MFEI** in paragraph 37 are not defined. Please spell out the words for abbreviations at the first time of usage. Appropriate correction is required.
5. The use of the trademark has been noted in this application, for example, in paragraph 68 and paragraph 78, **Java Applet**. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

To expedite correction on this matter, the examiner suggests the following guidelines for Applicant to follow in amending the specification:

- a. Capitalize each letter of a trademark or accompany the trademark with an appropriate designation symbol, e.g., <sup>TM</sup> or ®, as appropriate.
- b. Use each trademark as an adjective modifying a descriptive noun. For example, it would be appropriate to recite "the JAVA platform" or "the JAVA programming language." Note that in these examples, "platform" and "programming language" provide accompanying generic terminology, describing the context in which the

Art Unit: 2122

trademark is used. By itself, the trademark JAVA specifies only the source of the so-labeled products, namely SUN Microsystems, Inc.

### ***Claim Objections***

6. Claims 10 and 18 are objected to because of the following informalities:
  - a. Claim 10, 2<sup>nd</sup> line 'an another'. Appropriate correction is required.
  - b. Claim 18, end of the 5<sup>th</sup> line a '.,,' should be ','. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 3 is rejected since the "when authentication based on the authentication information has failed, said control unit controls so that." is not clearly defined. Examiner assumes that this paragraph means 'if the authentication is failed, the control unit will not allow the printing job to proceed'. Appropriate correction should be made.
9. Claim 16 is rejected, the claim cited "when authentication based on authentication information has failed, the controlling step controls so that said display section and operation panel section of the resources become available for the software components, and controls so that all the resources become available for the software components when authentication based on the authentication information has succeeded." – the resources should become unavailable for the software components when authentication information has failed. Appropriate correction should be made.
10. Claim 28 is rejected, the 1<sup>st</sup> sentence, "A computer program for causing the computer to realize a software..." There is insufficient antecedent basis for this limitation in the claim.
11. Claims 14, 27, and 28 are rejected, the limitation cited "having hardware one or more of resources of a display section" is not clear, the sentence should be "having one or more hardware resources of a display section" as claim 1. Appropriate correction should be made.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0026538, by Akinori Takeo et al. (hereinafter "Takeo"), in view of U.S. Patent No. 6,314,565 by Brian Kenner (hereinafter "Kenner"), and further in view of US2002/0015180 by Masahiko Tominaga (hereinafter "Tominaga").

**CLAIM**

1. An image formation system comprising:  
(i) an image formation apparatus connected to a network, said image formation apparatus having one or more hardware resources of a display section, an operation panel section, a printing section, and an image pickup section, wherein said image formation apparatus capable of providing one or more services of a printer, a copier, or a facsimile; and

**Takeo / Kenner / Tominaga**

In Takeo, paragraph 0053, "FIG. 1 is a block diagram showing an example of a peripheral device constituting an embodiment of the present invention, the peripheral device having a compound **image processing function** capable of processing a job by an **image** input function, a **print** function and a **facsimile** transmission/reception function" (**one or more hardware resources**). In paragraph 5, "there is already known an apparatus which, after receiving a password together with print data transmitted from a host apparatus, **receives a password entered by the user** through the **operation panel** and starts **printing** only in case the entered password matches the transmitted password" (**authentication**); in paragraph 56, "A user interface 6 composed of an LCD **display** and a keyboard **displays information** from the **controller (Control unit)** 1 and **transmits the instruction**

Art Unit: 2122

wherein said image formation apparatus includes,

(iii) a selection unit that selects a desired software component from a list software components accumulated in said server and displayed on said display section;

(iv) an acquisition unit that acquires the

from the user to the controller 1.”; and in paragraph 65, “job such as **printing, scanning, copying** or **facsimile** transmission/reception to the MFP 31 through the **network**”. See Takeo’s FIG. 1-3, the disclosed prior art that has one or more hardware resources of a display section, an operation panel section, a printing section, and an image pickup section, which correspond to claimed image formation apparatus

For item iii ‘selection unit’, in Takeo, paragraph 190, “The **user input** (**selection** of an item in the list box or depression of a button) is executed through the keyboard 24 of the peripheral device or through the keyboard 44 and the pointing device 45 of the PC 32 to 34.”; in paragraph 196, “The user can **select** desired set values in the list boxes”; both sentences imply that Takeo’s art has a **selection unit** to process user’s selection. Takeo teaches all features in this claim, however he didn’t specifically mention selecting ‘a list of software components’, however in Kenner’s abstract, “A method for updating software components on a user terminal connected to a network provides for the automatic identification, retrieval, and installation of a **selection of software components**.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Takeo’s control unit/printing unit/display section, an operation panel section, a printing section/image pickup section network, with the acquisition unit for a selection of software components further taught by Kenner, for the purpose of selecting a desired software component (see Kenner Abstract, 3<sup>rd</sup> line).

For item iv, in Takeo, paragraph 93, “At a step 81 requests the **acquisition** of the

Art Unit: 2122

software component acquired by said selection unit and authentication information from said server; and

(v) a control unit that controls processing operation of the software component acquired by said acquisition unit based on the authentication information acquired by said acquisition unit.

(ii) a server connected the network, said server providing a software component to said image formation apparatus via said network,

'attribute list supported by the job' to the **peripheral device** and **acquires** such attribute list. Then a step 82 discriminates whether an attribute A required by the driver software is contained in the 'attribute list supported by the job' **acquired** in the step 81," and in claim 19, "An information processing apparatus for generating a job and issuing the generated job to a peripheral device, comprising: **acquisition means** for acquiring, from the peripheral device,". Further, In Kenner, column 4, lines 28-30, "A system and a method are provided whereby the **identification, acquisition, (authentication information)** and installation of multimedia computer software is automated." Both Takeo and Kenner have taught the 'acquisition unit' and authentication information feature in the current invention. For item v, in Tominaga's abstract, "**unauthorized** use of image processing software operating on image forming devices for generating image data to be supplied to image forming devices, can be prevented." Further in claim 5, "**control means (control unit)** for **restricting** a number of image forming devices capable of receiving image data outputted from said image output means", this implies that an **authentication** process done by a control unit using the authentication information has been taught by Tominaga's art.

For item ii, in Takeo paragraph 0063, "FIG. 3 is a block diagram showing an example of the configuration of a **network** system in which the peripheral device shown in FIG. 1 is applicable", Takeo teaches all the aspect about network but does not specifically mentioned a server is connected to the network for an image formation apparatus. However, Tominaga



Art Unit: 2122

has taught this in an analogous prior art, in Tominaga, claim 1, "**An image forming system** including a **server** and client computers connected to a **network**". It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Takeo's control unit/printing unit/display section, an operation panel section, a printing section/image pickup section network, with the server and network feature further taught by Tominaga, for the purpose of printing a certain job via a LAN using a dedicated hardware (see Tominaga, paragraph 4).

2. The image formation system according to claim 1, wherein said control unit restricts a range of resources available for the software components, of resources provided in said image formation apparatus, based on the authentication information.

For the feature of claim 1 see claim 1 item (v) rejection.

3. The image formation system according to claim 2, wherein

when authentication based on the authentication information has failed, said control unit controls so that. Said display section and operation panel section of the resources become available for the software components, and controls so that all the resources become available for the software components when the authentication based on authentication information has succeeded.

For the feature of claim 2 see claim 2 rejection. Again see Takeo paragraph 5, "the **operation panel** and starts **printing** only in case the entered password matches the transmitted password" Takeo teaches the feature of only if the authentication information has succeeded, the operation panel section will be available. Also, in Tominaga, paragraph 142, "the server-side protector interface 115 invalidates the **license information** of the protectors which have handed over the license information, when the license information of each of the protectors is stored in the one protector. This **prevents unauthorized copying** of license information." Both Takeo and Tominaga's arts have taught an **authentication** step has to be done before using resources. If the authentication has failed, the **control**

Art Unit: 2122

**unit** will not allow the printing to proceed (see 112(2) rejection above).

4. The image formation system according to claim 3, wherein  
the authentication information includes information related to rights for using the respective resources by the software components, and

For the feature of claim 1 see claim 1 rejection. Same as claim rejection 3, a correct password can be the authorized **rights** to use the respective resources.

said control unit decides whether the software components can use the resources based on the information related to the using rights.

See claim 1 item (v) rejection.

7. The image formation system according claim 1, wherein said server WWW server functioning the Internet, and  
said image formation apparatus further provides a browser with which pages described in HTML are browsed.

For the feature of claim 1 see claim 1 rejection. In Tominaga, paragraph 4, "users have performed **image forming** by selecting a desired printer from a computer and causing the selected printer to print a certain job via an general-purpose interface such as a **LAN or an interface** using dedicated hardware", Tominaga did not limit what LAN interface, therefore a browser with HTML described pages also applies.

10. The image formation system according to claim 1, wherein, one vendor manages said server, and an another vendor can register a software component to said server by paying a particular registration fee to the vendor that manages the server.

For the feature of claim 1 see claim 1 rejection. In Tominaga, paragraph 157, "After selecting the type of cluster, the user inputs a cluster name 1810. Also, a list 1811 of printers which can be **registered** as output destinations for clusters **registered** in the printer settings is displayed, and the user checks the check boxes of the printers to be **registered** as output destinations of the cluster." Moskowitz claim 158, "wherein the device transacts according to at least one predetermination of at least an identity of the **vendor**", paragraph 200, "the output device administration table is a data group made up of the printer type 2602, name

2603, and detailed information 1604 such as finishing options according to the type and installation states of the printers **registered** as the printing destinations of the document **server** 102 in the printer settings." It's a normal commercial behavior that for any **vendor** who wants to register to a server will have to be **charged**, vendors would be expected to pay either **advisement fee** or registration fee.

11. The image formation system according claim 1, wherein one vendor is charged for an advertisement fee of a software component each time said image formation apparatus acquires the software component from said server.

For the feature of claim 1 see claim 1 rejection. For the rest of the claim, see claim 10 rejection.

12. The image formation system according claim 11, wherein a server of the third-party vendor can be registered with said image formation apparatus as server allowed to be authenticated when third-party pays a particular registration fee.

For the feature of claim 11 see claim 11 rejection. For the rest of the claim, see claim 10 rejection.

13. The image formation system according to claim 12, wherein one or more of a charge for using said image formation apparatus and the registration fee paid by the third-party vendor is changed according to a range of resources available for said image formation apparatus.

For the feature of claim 12 see claim 12 rejection. For the rest of the claim, see claim 10 rejection.

14. A software acquisition method in an image formation system which connects an image formation apparatus and a server to a network, said image formation apparatus having hardware one or more of resources of a display section, an operation panel section, a printing section, and an image pickup section and for providing one or more of services of a

Same as claim 1 rejection.

printer, copier, facsimile, and said server providing a software component to said image formation apparatus performing the steps of:

selecting a desired software component from a list of software components accumulated said server and displayed on said display section;

acquiring selected software component and authentication information from said server; and

controlling a processing operation of the acquired software component based on the acquired authentication information.

15. The software acquisition method according to claim 14, wherein the controlling step restricts a range of resources available for the software component, of resources provided in said image formation apparatus, based on the authentication information.

For the feature of claim 14 see claim 14 rejection. For the rest of the claim, see claim 1 item (v) rejection.

16. The software acquisition method according to claim 15, wherein, when authentication based on authentication information has failed, the controlling step controls so that said display section and operation panel section of the resources become available for the software components, and controls so that all the resources become available for the software components when authentication based on the authentication information has succeeded.

For the feature of claim 15 see claim 15 rejection. For the rest of the claim, see claim 3 rejection.

17. The software acquisition method according to claim 16, wherein the authentication information includes information related to rights for using the respective resources by the software components, and

For the feature of claim 16 see claim 16 rejection. For the rest of the claim, see claim 4 rejection.

the controlling step decides whether the

Same as claim 4 rejection.

software components can use the resources based on the information related to the using rights.

20. The software acquisition method according to claim 14, wherein said server Internet, and

said image formation apparatus has a browser with which pages described HTML are browsed.

For the feature of claim 14 see claim 14 rejection. For the rest of the claim, see claim 7 rejection.

23. The software acquisition method to claim 14, wherein, one vendor manages said server, and an another vendor can register a software component to said server by paying a particular registration fee the vendor that manages the server.

For the feature of claim 14 see claim 14 rejection. For the rest of the claim, see claim 10 rejection.

24. The software acquisition method according to claim 23, wherein the vendor is charged for an advertisement fee of a software component each time said image formation apparatus acquires the software component from said server.

For the feature of claim 23 see claim 23 rejection. For the rest of the claim, see claim 10 rejection.

25. The software acquisition method according to claim 24, wherein a server of the third-party vendor can be registered with said image formation apparatus as a server allowed to be authenticated when the third-party pays a particular registration fee.

For the feature of claim 24 see claim 24 rejection. For the rest of the claim, see claim 10 rejection.

26. The software acquisition method according to claim 25, wherein one or more of a charge for using said image formation apparatus and the registration fee paid by the third-party vendor changed according range resources available said image formation apparatus.

For the feature of claim 25 see claim 25 rejection. For the rest of the claim, see claim 10 rejection.

27. A computer readable recording medium for storing instructions, which when executed on a computer, causes the

Same as claim 1 rejection.

Art Unit: 2122

computer to realize a software acquisition method in an image formation system which connects an image formation apparatus and a server to a network, said image formation apparatus having hardware one or more of resources of a display section, an operation panel section, a printing section, and an image pickup section and for providing one or more of services of a printer, a copier, or a facsimile, and said server providing a software component to said image formation apparatus, wherein said image formation apparatus performing the steps of:

- selecting a desired software components accumulated in said server and displayed on said display section;

- acquiring the selected software component and authentication information from said server; and

- controlling a processing operation of the acquired software component based on the acquired authentication information.

28. A computer program for causing the computer to realize a software acquisition method in an image formation system which connects image formation apparatus and a server to a network, said image formation apparatus having hardware one or more of services of a printer, a copier, or a facsimile, and said server providing a software component to said image formation apparatus, wherein said image formation apparatus performing the steps of:

- selecting a desired software component from a list of software components accumulated said server and displayed on said display section;

- acquiring selected software component and authentication information from said server; and

Same as claim 1 rejection.

Art Unit: 2122

controlling a processing operation of the acquired software component based on the acquired authentication information.

14. Claims 5, 6, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0026538, by Akinori Takeo et al. (hereinafter "Takeo"), in view of U.S. Patent No. 6,314,565 by Brian Kenner (hereinafter "Kenner"), further in view of US2002/0015180 by Masahiko Tominaga (hereinafter "Tominaga"), and further in view of US2003/0023963 by Suellen Kae Birkholz et al. (hereinafter "Birkholz").

**CLAIM**

5. The image formation system according to claim 1, wherein said image formation apparatus further comprises a transmission unit that transmits configuration information for said image formation apparatus to said server when succeeding in the authentication based on the authentication information, and said server dynamically organizes software components executable on said image formation apparatus based on the configuration information received from said image formation apparatus, and sends the organized software components back to said image formation apparatus.

6. The image formation system according to claim 5, wherein

said transmission unit transmits identification information for identifying said image formation apparatus to said server, and

said server identifies one or more of configuration information and a contract form of said image formation apparatus based on the identification information received from said image formation apparatus, dynamically organizes software components executable on said image formation apparatus based on the identified configuration information and/or contract form, and sends the organized software components back to said image formation apparatus.

**Takeo / Kenner / Tominaga /  
Birkholz**

For the feature of claim 1 see claim 1 rejection. In Takeo claim 1, "**transmission means** for transmitting, from the peripheral device to the information processing apparatus". Takeo, Kenner, and Tominaga teach all aspects of the applicant's claims but it does not specifically mention the 'software executable' feature. However, in Birkholz, Paragraph 0171, "The software upgrade process **server** 3630 may be any machine comprising a software upgrade process program 3632 which, when **executed**, performs a software upgrade process according to a request received from an external client computer 3610." It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Takeo and Kenner's disclosure further taught by Birkholz, for the purpose of updating a desired software component (see Birkholz Abstract, 1<sup>st</sup> line).

For the feature of claim 5 see claim 5 rejection.



Art Unit: 2122

18. The software acquisition method according claim 14, further comprising a step of transmitting configuration information for said image formation apparatus to said server when said image formation apparatus has succeeded in authentication based on the authentication information,, wherein

said server dynamically organizes software components executable on said image formation apparatus based on the configuration information received from said image formation apparatus, and sends the organized software components back to said image formation apparatus.

For the feature of claim 14 see claim 14 rejection. For the rest of the features see claim 5 rejection.

19. The software acquisition method according to claim 18, wherein

in the transmitting step, identification information for identifying said image formation apparatus transmitted to said server, and

said server identifies one or more configuration information and a contract form of said image formation apparatus based on the identification information received from said image formation apparatus, dynamically organizes software components executable on said image formation apparatus based on the identified configuration information and/or contract form, and sends the organized software components back to said image formation apparatus.

For the feature of claim 18 see claim 18 rejection. For the rest of the features see claim 6 rejection.

15. Claims 8, 21 rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0026538, by Akinori Takeo et al. (hereinafter "Takeo"), in view of U.S. Patent No. 6,314,565 by Brian Kenner (hereinafter "Kenner"), further in view of US2002/0015180

Art Unit: 2122

by Masahiko Tominaga (hereinafter "Tominaga"), and further in view of

US2002/0010684 by Scott A. Moskowitz (hereinafter "Moskowitz").

**CLAIM**

8. The image formation system according to claim 7, wherein the software component acquired by said acquisition unit operates as a plug-in for said browser.

**Takeo / Kenner / Tominaga /  
Moskowitz**

For the feature of claim 7 see claim 7 rejection. Takeo, Kenner, and Tominaga have taught all aspects of claim 8 except they don't mention the 'plug-in' feature, however, Moskowitz has showed this feature in an analogous prior art, in paragraph 0130, "Embodiments of the present invention may include a simple **Internet browser plug-in**, with complementary system **software** for the provider of 'information goods or services,' that would **identity, verify, authenticate**, enable transfer, enable copying or other manipulations of the various primary value-added information and value-added components."

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Takeo's control unit/printing unit/display section, an operation panel section, a printing section/image pickup section network, with the plug-in feature further taught by Moskowitz, for the purpose of ensure the transaction is disclosed to be the use of highly-secure computer processing means for data identification, authentication (see Moskowitz Abstract, line 15).

21. The software acquisition method according to claim 20, wherein the software component acquired in the acquiring step operates as a plug-in for said browser.

For the feature of claim 20 see claim 20 rejection. For the rest of the features see claim 8 rejection.

Art Unit: 2122

16. Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0026538, by Akinori Takeo et al. (hereinafter "Takeo"), in view of U.S. Patent No. 6,314,565 by Brian Kenner (hereinafter "Kenner"), further in view of US2002/0015180 by Masahiko Tominaga (hereinafter "Tominaga"), and further in view of US2001/0044857 by Tuan Huu Pham et al. (hereinafter "Pham") and 'The Java <sup>TM</sup> Virtual Machine Specification' by Tim Lindholm, and Frank Yelling (hereinafter "Lindholm").

**CLAIM**

9. The image formation system according claim 7, wherein said image formation apparatus further establishes a virtual machine that can execute CPU-independent, intermediate code, and the virtual machine executes the software components accumulated in said server in the form of the intermediate code.

**Takeo / Kenner / Tominaga /  
Pham / Lindholm**

Takeo, Kenner, and Tominaga teach all aspects of the applicant's claims but it does not specifically mention the 'establishes a virtual machine' feature. However, in Pham, paragraph 0030, "The client device 120, the client controller 125, the host device 135, and the host controller 140 each typically include one or more hardware components and/or software components. An example of a client device 120 or a host device 135 is a **general-purpose computer** (e.g., a personal computer) capable of responding to and executing instructions in a defined manner. Other examples include a **special-purpose computer**, a workstation, a server, a device, a component, other physical or **virtual equipment** or some combination thereof capable of responding to and executing instructions." In addition, the 'virtual machine' and 'intermediate code' is a well-known concept in the art for JAVA <sup>TM</sup> programming environment. See Lindholm, page 5, first paragraph. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement

Art Unit: 2122

Takeo's disclosure further taught by Pham and Lindholm, for the purpose of installing computer software components on a general purpose client device (see Pham Abstract, 1<sup>st</sup> line).

22. The software acquisition method according to claim 20, wherein said image formation apparatus has a virtual machine that can execute CPU-independent intermediate code, and the virtual machine executes the software components accumulated in said server in the form of the intermediate code.

For the feature of claim 20 see claim 20 rejection. For the rest of the claim, see claim 9 rejection.

### ***Conclusion***

The following summarizes the status of the claims:

- Claim objections: 10, 14
- 35 U.S.C. 112 (2) claim rejections: 3, 14, 16, 27, and 28
- 35 U.S.C. 103 claim rejections: 1-28

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Ching Chow whose telephone number is 703-305-7205. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 703-305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2122

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Ching Chow  
Examiner  
Art Unit 2122

CC

A handwritten signature in black ink, reading "Anthony Nguyen Ba". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

ANTHONY NGUYEN-BA  
PRIMARY EXAMINER